RECENT ADDITIONS TO THE MARINE ALGAL FLORA OF NAHANT, MASSACHUSETTS[1]

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The only comprehensive volume to date treating the benthic marine algae of northeastern North America is that of Taylor (1957). In addition to the systematics and species descriptions of relevant plants, Taylor also presents a brief historical summary of marine phycology from the late 1800's to approximately the mid-1950's.

Since that time, however, studies of benthic marine algae in New England have progressed rapidly. A summation of recent research dealing with algae of the sublittoral, with those of estuaries and adjacent salt marshes, and with the autecology of several species, has been published (Webber, 1975). This paper also contains a preliminary tabulation of 107 benthic algae specifically from the vicinity of the Marine Science Institute at Nahant.

In the early summer of 1973 nineteen additional species were collected, mostly from the Nahant rocky shore, and a few from a nearby salt marsh. These are listed below.

References used in determinations of the species were: Farlow (1882), Koster (1955), Taylor (1957), Bliding (1963), Cardinal (1964), Wilce (1965), and Drouet (1968). Extended comments on these species will be reserved for forthcoming publications.

LIST OF SPECIES

Cyanophycophyta

Oscillatoria lutea Ag. — Forming a 2 mm thick mat on deeply shaded and moist rocks just above high tide mark; mixed with *Microcoleus vaginatus* (Vauch.) Gom.

Rivularia atra Roth — epilithic in 2 small rock pools in spray zone.

Tolypothrix sp. and *Cylindrospermum sp.* — collected from salt marsh soil, mid-littoral.

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Chlorophycophyta

Tetraspora sp. — Located at the bases of the marsh grass, *Spartina patens* Ait. (Muhl.) upper littoral.

Pringsheimiella scutata (Reinke) Schmidt et Petrak — collected once, attached to the operculum of *Littorina obtusata*.

Blidingia marginata (J. Ag.) Dangeard ssp. *marginata* — commonly epilithic at and just above high tide level.

B. marginata ssp. *subsalsa* (Kjell.) Bliding — located immediately above *B. marginata*.

Enteromorpha compressa (L.) Grev. var. *compressa* — occurs in quantity in a splash zone pool at the top of the very exposed East Point rocks.

E. ahlneriana Bliding — common in tide pools at high tide level.

E. clathrata (Roth) Grev. (type I) — attached to small stones in the lower littoral zone of Lynn Harbor.

E. clathrata (Roth) Grev. (type II) — entangled with *Cladophora sp.* in the lower littoral zone of Lynn Harbor.

E. flexuosa (Wulfen ex Roth) J. Ag. ssp. *flexuosa* — growing on shells in the lower littoral zone of Lynn Harbor.

Urospora collabens (C. Ag.) Holmes et Batters — commonly epilithic in the mid-littoral zone at Nahant, often mixed with *Codiolum gregarium* A. Braun.

Rhizoclonium riparium (Roth) Harv. f. *riparium* — while *R. tortuosum* is the common species of this genus at Nahant, *R. riparium* was located in one splash-zone tide pool at the East Point rocks.

Phaeophycophyta

Ectocarpus fasciculatus var. *refractus* (Kutz.) Ard. — common on *Laminaria* stipes; previously reported by Taylor (1957) only from Maine, as an epiphyte on *Porphyra*.

Myriotrichia filiformis Harv. — epiphytic on *Chordaria flagelliformis* in a lower littoral zone tide pool.

Saccorhiza dermatodea (De la Pyl.) J. Ag. — epilithic at 8 to 20 foot depths, mixed with *Laminaria saccharina* (Wilce, 1965) and *L. digitata*. Published accounts of *S. dermatodea* along the northeast coast suggest that this species is limited to coastal waters north of Cape Ann, Massachusetts (Farlow, 1882; Lamb and Zimmermann, 1964; Stone, et. al., 1970; Mathieson and Fralick, 1972). However, records for the distribution for *Saccorhiza* in New England (Taylor, personal communication) reveal that plants of this species extend southward to the Cape Cod (Sandwich, Massachusetts) area. Indeed, *S. dermatodea* is known from the sublittoral at both ends of the Cape Cod Canal (Wilce, personal communication).

Rhodophycophyta

Nemalion multifidum (Weber et Mohr) J. Ag. — epilithic in the upper sublittoral, uncommon, only female plants located.

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Appreciation is expressed to Dr. W. Randolph Taylor for sending me collection records of *Saccorhiza dermatodea* from his personal herbarium. Plants of this species were collected simultaneously at Nahant (July 14, 1973) by Jane Menge and Barry Spracklin.

In addition, *Myriotrichia filiformis*, *Nemalion multifidum*, and *Rivularia atra* were collected initially by Jane Menge, while *Prigsheimiella scutata* was located by Barry Spracklin.

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